

PATENT
Serial No. 10/506,288
Amendment in Reply to Office Action mailed on April 5, 2007

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A device for generating ultraviolet radiation by means of an excimer discharge, which device is equipped with an at least partly UV-transparent discharge vessel whose discharge space is filled with a gas filling, with means for triggering and maintaining an excimer discharge in the discharge space, and with a coating that contains a phosphor comprising a host lattice and neodymium(III) as an activator, wherein the phosphor is selected from the group $(\text{La}_{1-x}\text{Y}_x)\text{PO}_4:\text{Nd}$ where $0 \leq x \leq 1$, $(\text{La}_{1-x}\text{Y}_x)\text{PO}_4:\text{Nd}, \text{Pr}$ where $0 \leq x \leq 1$, $\text{SrAl}_{12}\text{O}_{19}:\text{Nd}$, $\text{LaB}_5\text{O}_{10}:\text{Nd}$, $\text{LaMgB}_5\text{O}_{10}:\text{Nd}$, $\text{SrAl}_{12}\text{O}_{19}:\text{Nd}, \text{Pr}$, $\text{LaBO}_3\text{O}_6:\text{Nd}, \text{Pr}$, $\text{LaMgB}_5\text{O}_{10}:\text{Nd}, \text{Pr}$ and $\text{GdPO}_4:\text{Nd}$.

2. (Currently Amended) A The device for generating ultraviolet

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radiation as claimed in claim 1, ~~characterized in that wherein the~~
phosphor contains praseodymium(III) as a co-activator.

Claim 3 (Canceled)

4. (Currently Amended) A ~~The~~ device for generating ultraviolet radiation as claimed in claim 1, ~~characterized in that wherein the~~ phosphor comprises a coating that contains an oxide selected from the group MgO, SiO₂ and Al₂O₃.

5. (Currently Amended) A ~~The~~ device for generating ultraviolet radiation as claimed in claim 1, ~~characterized in that wherein the~~ gas filling contains a gas selected from the group xenon, krypton, argon, neon and helium.

6. (Currently Amended) A ~~The~~ device for generating ultraviolet radiation as claimed in claim 1, ~~characterized in that wherein the~~ gas filling contains xenon.

7. (Currently Amended) A ~~The~~ device for generating ultraviolet

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radiation as claimed in claim 1, ~~characterized in that wherein the~~
means for triggering and maintaining include electrodes that are
composed of a metal or an alloy that reflects UV-C light.

8. (Currently Amended) A-The device for generating ultraviolet radiation as claimed in claim 1, ~~characterized in that wherein part~~
of the discharge vessel is provided with a coating that acts as a reflector of VUV and/or UV-C light.

9. (Original) Use of the device claimed in claim 1 for photolytic processes.

10. (New) A device for generating ultraviolet radiation comprising:

at least partly UV-transparent discharge vessel having a discharge space filled with a gas filling;

electrodes configured to trigger and maintain an excimer discharge in the discharge space; and

a coating that contains a phosphor comprising a host lattice and neodymium(III) as an activator, wherein the phosphor is

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selected from the group $(La_{1-x}Y_x)PO_4:Nd$ where $0 \leq x \leq 1$, $(La_{1-x}Y_x)PO_4:Nd,Pr$ where $0 \leq x \leq 1$, $SrAl_{12}O_{19}:Nd$, $LaB_3O_6:Nd$, $LaMgB_5O_{10}:Nd$, $SrAl_{12}O_{19}:Nd,Pr$, $LaBO_3O_8:Nd,Pr$, $LaMgB_5O_{10}:Nd,Pr$ and $GdPO_4:Nd$.

11. (New) The device of claim 10, wherein the phosphor contains praseodymium(III) as a co-activator.

12. (New) The device of claim 10, wherein the phosphor comprises a coating that contains an oxide selected from the group MgO , SiO_2 and Al_2O_3 .

13. (New) The device of claim 10, wherein the gas filling includes a gas selected from the group xenon, krypton, argon, neon and helium.

14. (New) The device of claim 10, wherein the gas filling includes xenon.

15. (New) The device of claim 10, wherein the means for triggering and maintaining include electrodes that are composed of

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a metal or an alloy that reflects UV-C light.

16.(New) The device of claim 10, wherein part of the discharge vessel is provided with a coating that acts as a reflector of VUV and/or UV-C light.